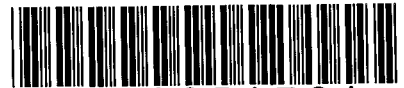


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BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
CHAIRMAN
WILLIAM A. MUNDELL
COMMISSIONER
MARC SPITZER
COMMISSIONER
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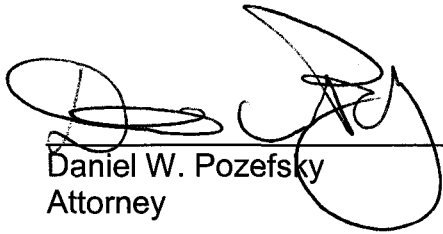
IN THE MATTER OF THE APPLICATION OF
BLACK MOUNTAIN SEWER COMPANY, AN
ARIZONA CORPORATION, FOR A
DETERMINATION OF THE FAIR VALUE OF
ITS UTILITY PLANT AND PROPERTY AND
FOR INCREASES IN ITS RATES AND
CHARGES FOR UTILITY SERVICE BASED
THEREON.

Docket No. SW-02361A-05-0657

NOTICE OF FILING

The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the Surrebuttal Testimony of Marylee Diaz Cortez, CPA, and William A. Rigsby in the above-referenced matter.

RESPECTFULLY SUBMITTED this 4th day of May, 2006.


Daniel W. Pozefsky
Attorney

1 AN ORIGINAL AND THIRTEEN COPIES
2 of the foregoing filed this 4th day
3 of May, 2006 with:

4 Docket Control
5 Arizona Corporation Commission
6 1200 West Washington
7 Phoenix, Arizona 85007

8 COPIES of the foregoing hand delivered/
9 mailed this 4th day of May, 2006 to:

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BLACK MOUNTAIN SEWER COMPANY

DOCKET NO. SW-02361A-05-0657

SURREBUTTAL TESTIMONY

OF

MARYLEE DIAZ CORTEZ

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

May 4, 2006

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1 **INTRODUCTION**

2 Q. Please state your name for the record.

3 A. My name is Marylee Diaz Cortez.

4

5 Q. Have you previously filed testimony in this docket?

6 A. Yes. I filed direct testimony on September 5, 2003.

7

8 Q. What is the purpose of your surrebuttal testimony?

9 A. In my surrebuttal testimony I will respond to the positions and arguments
10 set forth by the Black Mountain Sewer witnesses in their rebuttal
11 testimonies. I will reaffirm RUCO's recommendations as set forth in my
12 direct testimony.

13

14 Q. What areas will you address in your surrebuttal testimony?

15 A. I will address the following issues in my surrebuttal testimony:

16 * Scottsdale Wastewater Treatment Capacity

17 * Post-Test-Year Plant in Service

18 * Accumulated Deferred Income Taxes

19 * Cash Working Capital

20 * Capitalized Expenses

21

22 RUCO witness William Rigsby will address the operating income issues,
23 cost of capital, and rate design.

RATE BASE

Scottsdale Wastewater Treatment Capacity

Q. Please discuss the Company's rebuttal comments pertaining to your Scottsdale Capacity adjustment.

A. The Company opposes RUCO's recommendation that the Scottsdale Wastewater Treatment Capacity should be recognized in rates for what it is - an asset and a liability. The Company further opines that since the Commission authorized a hypothetical "operating lease" ratemaking treatment in a prior Boulders Carefree Sewer rate case that the same methodology should be applied to Black Mountain Sewer Company in the future.

Q. Do you agree with this logic?

A. No. Black Mountain Sewer Company is an entirely different company, with different ownership and an entirely different capitalization. Furthermore in a generic sense, a Commission order is only applicable until superceded by a subsequent order. The Commission is not locked into its prior decision on a going forward basis, particularly not when circumstances have greatly changed. This is why companies have rate cases, so rates can be properly adjusted to reflect the company's current circumstances. Black Mountain's rebuttal argument that it is somehow precluded from revisiting the Scottsdale Capacity issue in the context of this rate case is without merit. The purpose of a rate case is exactly

1 contrary to that notion. A rate case examines a company's ratemaking
2 elements and sets fair and reasonable rates based on that examination.
3 To the extent those ratemaking elements include a hypothetical "operating
4 lease" that should also be included in the ratemaking analysis.

5
6 Q. Does continuation of the hypothetical "operating lease" ratemaking make
7 any sense for this company at this time?

8 A. No. As discussed in my direct testimony, this methodology is
9 inappropriate for Black Mountain Sewer Company. When Algonquin
10 acquired the Boulders Carefree Sewer stock, it acquired certain assets,
11 one of which is the Scottsdale Treatment Capacity. The instant case is
12 Black Mountain's first request for rates, and those rates should be set
13 utilizing the appropriate ratemaking treatment for assets and liabilities.
14 Despite the Company's rebuttal arguments, it has never been the
15 Commission's policy to blindly adhere to its previous decisions and ignore
16 current circumstances and conditions.

17

18 **Post-Test-Year Plant**

19 Q. Please discuss the Company's rebuttal comments regarding Post-Test-
20 Year Plant.

21 A. The Company agrees with RUCO's adjustment that restates the estimated
22 cost of the post-test-year chlorinator to reflect its actual cost. The
23 Company also has agreed to remove from its post-test-year request

1 certain line extension costs that were incurred after the end of the test
2 year.

3

4 **Accumulated Deferred Income Taxes**

5 Q. What rebuttal comments does the Company make regarding your
6 Accumulated Deferred Income Tax adjustment?

7 A. The Company first states that it accepts the Staff proposed deferred
8 income tax adjustment, which computes a deferred tax asset that
9 increases the Company's rate base. Black Mountain then rejects my
10 proposed adjustment, which computes a deferred tax liability that reduces
11 the rate base.

12

13 Q. Please compare the Staff's deferred tax calculation to RUCO's calculation.

14 A. First, both the Staff and RUCO proposed deferred tax calculations that
15 were necessitated by the fact that the Company made *no* deferred tax
16 calculation and simply omitted deferred taxes from its proposed rate base.
17 However, the similarity stops there. The Staff adjustment is based on
18 information originally conveyed in response to a RUCO data request, and
19 further followed up by the Staff. The Company's response to the request
20 identifies a purported net deferred tax asset. The nature of utility income,
21 assets, and liabilities is that these businesses almost unfailingly create net
22 deferred tax liabilities. The fact that the Company had originally omitted
23 any recognition of deferred taxes and then identified a deferred tax asset

1 *only when questioned*, created a degree of skepticism that caused me to
2 look to independent sources to validate this information.

3

4 Q. What independent source did you look to?

5 A. I looked at Algonquin Power's 2004 Annual Report. The financial
6 statements within that report are audited reports and are therefore reliable.
7 The report at page 43 contains a detailed itemization of deferred tax
8 assets and liabilities, and clearly identifies a net tax liability.

9

10 Q. Does the Company explain why it objects to information obtained from its
11 audited financial statements being used in this rate case?

12 A. No. The Company offers no explanation for why it believes RUCO should
13 have relied on an amount provided in data requests over those contained
14 in its audited financial statements.

15

16 Q. What other arguments does the Company make on this issue?

17 A. The Company further argues that it believes RUCO's deferred tax
18 calculation is "contrary" to Statement of Financial Accounting Standard
19 (SFAS) 109.

20

21 Q. What aspect of SFAS 109 does the Company believe RUCO's
22 recommended adjustment is "contrary" to?

1 A. The Company does not identify why it believes RUCO's recommendation
2 is "contrary" to SFAS 109.

3
4 Q. Are you familiar with SFAS 109?

5 A. Yes. SFAS 109 is the accounting standard applicable to deferred income
6 taxes.

7
8 Q. Is there anything in SFAS 109 that is "contrary" to your recommended
9 deferred income tax adjustment?

10 A. No. However, my review of SFAS 109 revealed that the Company's
11 original treatment of deferred income taxes (omitting recognition of them
12 altogether) is in fact contrary to SFAS 109, which requires the following:

13
14 The consolidated amount of current and deferred income for
15 a group that files a consolidated tax return **shall be**
16 **allocated among the members of the group** when those
17 members issue separate financial statements. **This**
18 **Statement does not require a single allocation method.**
19 The method adopted, however, shall be systematic, rational,
20 and consistent with the broad principles established by this
21 statement...

22
23 Examples of methods that are not consistent with the broad
24 principles of this Statement include:

25 a. A method that allocates **only current taxes payable**
26 **to a member of the group that has taxable temporary**
27 **difference** [emphasis added]
28

1 The Company's filing is in fact contrary to SFAS 109 because it does
2 include a provision for current income taxes but not for deferred income
3 taxes.

4
5 Q. Do any of the Company's rebuttal comments affect your recommended
6 deferred income tax adjustment?

7 A. No. The Company only presents two arguments, 1) that RUCO should
8 have utilized data provided in a data request rather than from the
9 Company's audited financial statements, and 2) that RUCO's allocation
10 methodology is contrary to SFAS 109. As just discussed, both arguments
11 are without merit.

12

13 **Cash Working Capital**

14 Q. Please discuss the Company's rebuttal comments pertaining to cash
15 working capital.

16 A. The Company's rebuttal comments to this issue are limited to a single
17 comment that RUCO estimated the leads and lags used in its working
18 capital calculation and concludes that therefore "the working capital
19 amount computed by RUCO is pure speculation."

20

21 Q. How did you calculate the leads and lags contained in your cash working
22 capital calculation?

1 A. Contrary to the Company's testimony that the leads and lags used in my
2 cash working capital calculation were "estimates" and "pure speculation," I
3 calculated the revenue lead days based on actual customer bills showing
4 the service period, bill date, and payment due date. The expense lags
5 were not estimates either. I utilized the very same expense lags that the
6 Company used in its cash working capital calculation, so these amounts
7 should not be in contention.

8
9 Q. Is it still your position that Black Mountain has a negative cash working
10 capital requirement?

11 A. Yes. The Company receives its revenues prior to having to pay its
12 expenses, thus, ratepayers are funding the Company's cash working
13 capital needs. The Company has presented no evidence or argument in
14 its rebuttal testimony that negates this fact.

15
16 **Capitalized Expenses**

17 Q. Please discuss the Company's rebuttal comments pertaining to your
18 capitalized expense adjustment.

19 A. The Company states that it agrees with the portion of RUCO's adjustment
20 that capitalizes safety equipment, but does not agree with the portion
21 related to training on the safety equipment and legal fees associated with
22 an operating agreement with the Town of Carefree.

1 Q. Do you still believe the appropriate accounting treatment for these two
2 expenses is capitalization?

3 A. Yes. The costs for training people on the new safety equipment is a cost
4 of putting those assets in place, and accordingly under GAAP accounting,
5 are required to be capitalized along with the safety equipment. Likewise,
6 the legal fees associated with franchises and operating agreements with
7 state and local government entities are required under the Uniform
8 System of Accounts to be capitalized in account 352 - Franchises. RUCO
9 continues to recommend capitalization of these two expenses.

10

11 Q. Does this conclude your surrebuttal testimony?

12 A. Yes.

13

BLACK MOUNTAIN SEWER COMPANY

DOCKET NO. SW-02361A-05-0657

SURREBUTTAL TESTIMONY

OF

WILLIAM A. RIGSBY

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

May 4, 2006

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INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is William A. Rigsby. I am a Public Utilities Analyst V employed by the Residential Utility Consumer Office ("RUCO") located at 1110 W. Washington, Suite 220, Phoenix, Arizona 85007.

Q. Please state the purpose of your surrebuttal testimony.

A. The purpose of my testimony is to respond to Black Mountain Sewer Corporation's ("BMSC" or "Company") rebuttal testimony on RUCO's recommended operating expense adjustments, recommended rate design and recommended rate of return on invested capital (including RUCO's recommended capital structure and cost of debt) for the Company's wastewater operation located in Maricopa County.

Q. Will your surrebuttal testimony address any of the rate base issues in the case?

A. No. The rate base issues, including RUCO's recommendations on the Company's treatment capacity with the City of Scottsdale, will be addressed in the surrebuttal testimony of RUCO witness Marylee Diaz Cortez, CPA.

...

1 Q. Have you filed any prior testimony in this case on behalf of RUCO?

2 A. Yes, on January 17, 2006, I filed two separate pieces of direct testimony
3 with the Arizona Corporation Commission ("ACC" or "Commission") on
4 BMSC's application requesting a permanent rate increase ("Application").
5 My first piece of direct testimony addressed the operating expense and
6 rate design issues associated with the case and also presented RUCO's
7 recommended level of operating revenue. My second piece of direct
8 testimony addressed the cost of capital issues associated with BMSC's
9 filing.

10
11 Q. How is your surrebuttal testimony organized?

12 A. My surrebuttal testimony contains four parts: the introduction that I have
13 just presented, a summary of BMSC's rebuttal testimony, a section on
14 RUCO's recommended operating expense adjustments, and a section on
15 the cost of capital issues.

16
17 **SUMMARY OF BMSC'S REBUTTAL TESTIMONY**

18 Q. Have you reviewed BMSC's rebuttal testimony?

19 A. Yes. I have reviewed the Company's rebuttal testimony, which was filed
20 on April 6, 2006.

21
22 ...

1 Q. Please summarize the Company's rebuttal testimony as it pertains to
2 those aspects of the case that you were involved with.

3 A. With regard to the operating expense aspects of the case, BMSC
4 disagrees with RUCO Operating Adjustment #1 which removed the
5 Company's pro forma Scottsdale Capacity (Operating Lease) expense
6 figure, and RUCO Operating Adjustment #6, which reduced the Company-
7 proposed level of property tax expense. BMSC partially disagrees with
8 RUCO's Operating Adjustment #2, which capitalized certain test year
9 expense items related to an operating agreement between the Company
10 and the Town of Carefree, and the Company's cost of purchasing,
11 installing, and providing training on confined space entry and rescue
12 equipment during the test year. BMSC has accepted RUCO's Operating
13 Adjustments #3 and #4, which normalized management fees and removed
14 long-distance phone charges for calls made to various locations in Texas,
15 respectively. The Company did not take issue with the methodologies that
16 I used to calculate RUCO's recommended levels of depreciation and
17 income tax expense (RUCO's Operating Adjustments #5 and #7). Finally,
18 BMSC has increased the Company-proposed level of amortized rate case
19 expense, from \$30,000 per year to \$37,500 per year.

20 In regard to rate design there does not appear to be any areas of
21 contention between RUCO and the Company. As I pointed out in my
22 direct testimony, RUCO believes, as does the Company, that the current
23 type of rate design should be retained. The only changes made by RUCO

1 to the current rate design were adjustments to the monthly charges in
2 order to generate RUCO's recommended level of revenue.

3 In regard to the cost of capital aspect of the case, the Company's cost of
4 capital witness disagrees with my recommendations on capital structure,
5 cost of debt and cost of common equity and is critical of the methods that I
6 have used to derive my recommended 9.49 percent cost of common
7 equity for BMSC.

8
9 **OPERATING EXPENSE ADJUSTMENTS**

10 Q. Why does BMSC oppose RUCO's Operating Adjustment #1 which
11 removed the Company's pro forma Scottsdale Capacity (Operating Lease)
12 expense figure?

13 A. BMSC has rejected RUCO witness Marylee Diaz Cortez's
14 recommendation that the Company's purchased treatment capacity from
15 the City of Scottsdale be treated as a utility asset, as opposed to an
16 operating lease, and that the purchased treatment capacity be included in
17 rate base. RUCO's Operating Adjustment #1 was a direct result of the
18 rate base adjustments recommended by Ms. Diaz Cortez.

19
20
21
22 ...
23

1 Q. Does RUCO still recommend that the Company's purchased treatment
2 capacity from the City of Scottsdale be treated as a utility asset, as
3 opposed to an operating lease?

4 A. Yes. RUCO believes that the Commission should ratebase the
5 Company's purchased treatment capacity. A more detailed discussion of
6 this issue is contained in the surrebuttal testimony of Ms. Diaz Cortez.
7

8 Q. Do you accept the Company's rebuttal position that the Commission
9 should reject RUCO's property tax recommendation because the ACC has
10 rejected RUCO's methodology for calculating property taxes in the past?

11 A. No. While it is true that the Commission has made such a decision in the
12 past favoring the Company and ACC Staff's methodology for calculating
13 property tax expense, it does not mean that the Commission's decision on
14 the Company and ACC Staff's methodology is permanent. The
15 Commission has reversed its decisions on specific methodologies for
16 calculating ratemaking components in the past, such as its recent decision
17 on how income tax payments should be treated in the calculation of cash
18 working capital in the Arizona Water Company Western Group rate case¹.
19
20

21 ...
22

¹ Decision No. 68302, dated November 14, 2005

1 Q. Do you continue to recommend that the Commission adopt RUCO's
2 Operating Adjustment #6, which reduced the Company-proposed level of
3 property tax expense?

4 A. Yes. Despite the Company's testimony regarding Commission
5 precedent, RUCO continues to believe that it is unlikely that the Company
6 will generate revenues consistent with its estimates in the near future. As
7 I stated in my direct testimony, BMSC would be over-collecting the
8 property tax expense for a number of years before the actual assessment
9 would catch up to the Company's 2005 projected revenue. In the
10 meantime, BMSC will be recovering the Company's property tax expense
11 based on an inflated revenue projection. For these reasons, RUCO
12 continues to believe that the Commission should adopt RUCO's
13 recommended level of property tax expense.

14
15 Q. Are there any other property tax issues that have arisen since you filed
16 your direct testimony?

17 A. Yes. Since I filed my direct testimony, I have learned that a bill that will
18 substantially reduce the property tax liability for investor-owned water,
19 sewer, and wastewater utilities is now moving through the Arizona
20 legislature. If this bill, known as Senate Bill 1432 ("S.B. 1432"), is signed
21 into law in its current form, public service companies such as BMSC will
22 be assessed no more than \$500 on the value of land, buildings,
23 improvements and personal property. This will result in windfall profits to

1 water and wastewater providers, some of which are already over-
2 collecting property taxes in rates as a result of recent ACC decisions that
3 relied on the Company-proposed methodology for calculating property tax
4 expense. In addition, taxpayers in Arizona will pay not only taxes
5 assessed on their own personal property, but will have to make up the
6 shortfall in property taxes now paid by investor-owned water, sewer, and
7 wastewater companies. Many of these Arizona taxpayers will not be
8 customers of the utilities that would receive favorable property tax
9 treatment under S.B. 1432, and will receive no benefit whatsoever from
10 the implementation of the bill's provisions.

11
12 Q. Can you quantify the possible effect of S.B. 1432 on BMSC's property tax
13 liability?

14 A. Yes. If the Commission adopted RUCO's recommendations in this
15 proceeding and S.B. 1432 was subsequently signed into law, BMSC's
16 annual property tax liability would fall from \$35,410 to only \$32.

17
18 Q. Do you agree with the Company's rationale that the legal and training
19 costs associated with the Company's operating agreement, between
20 BMSC and the Town of Carefree, and the confined space entry and
21 rescue equipment should be expensed as opposed to being capitalized?

22 A. No. I do not. The Company's witness believes that RUCO's purpose in
23 making these adjustments is to remove non-recurring legal and training

1 expenses. This is simply not the case. RUCO's purpose in making the
2 adjustment was to reclassify costs that were incorrectly booked by the
3 Company, and to place those costs into their proper accounts so they
4 would receive the appropriate ratemaking treatment. RUCO's
5 capitalization adjustment is consistent with accepted ratemaking and
6 accounting practices of capitalizing all of the costs that are directly
7 associated with placing specific assets (e.g. mains or structures) into
8 service. For these reasons, RUCO believes that the Company's argument
9 should be rejected.

10
11 Q. Please address the Company's rebuttal position on the level of rate case
12 expense.

13 A. BMSC is now proposing that the level of amortized rate case expense be
14 increased from \$30,000 per year to \$37,500 per year. This represents a
15 \$30,000 increase over the original \$120,000 rate case expense figure
16 presented in the Company's application. The Company's witness stated
17 that the additional expense was a result of data requests from ACC Staff
18 and RUCO, to a lesser extent, and the intervention of the Town of
19 Carefree.

20
21
22 ...
23

1 Q. What is RUCO's position on rate case expense at this stage of the
2 proceeding?

3 A. RUCO believes that the Commission should adopt no more than the
4 original \$120,000 level proposed by BMSC in the Company's original
5 application. RUCO is willing to accept this figure given the fact that this is
6 the Company's first filing for rate relief under its new owner, and no
7 previous rate case expense level has been adopted by the Commission in
8 the past. Given the lack of a "template" on which to make a comparison
9 on whether the original \$120,000 figure was reasonable or not, RUCO is
10 willing to accept it as a maximum level of expense in this proceeding.
11

12 **COST OF CAPITAL**

13 Q. Briefly summarize the positions of the parties to the case in regard to
14 capital structure, cost of debt, cost of equity and weighted cost of capital.

15 A. Both ACC Staff and the Company are recommending debt-free capital
16 structures comprised of 100 percent common equity. RUCO is
17 recommending a capital structure comprised of 44 percent debt and 56
18 percent common equity, with a weighted cost of debt of 9.40 percent,
19 should the Commission adopt the Company's pro forma Scottsdale
20 Capacity (Operating Lease) expense figure. Should the Commission
21 reject the Company's pro forma Scottsdale Capacity (Operating Lease)
22 expense figure, RUCO is recommending a slightly different capital
23 structure comprised of 43 percent debt and 57 percent common equity

1 with a weighted cost of debt of 8.16 percent. The costs of common equity
2 being recommended are as follows:

3	BMSC	11.00%
4	ACC Staff	9.60%
5	RUCO	9.49%

6 The weighted costs of capital being recommended by the parties to the
7 case are as follows:

8	BMSC	11.00%
9	ACC Staff	9.60%
10	RUCO ²	9.45%
11	RUCO ³	8.92%

12
13 **Capital Structure**

14 Q. Does the Company's witness recognize the fact that that the absence of
15 financial risk in the Company-proposed capital structure, comprised of 100
16 percent common equity, merits a lower cost of common equity?

17 A. No. The Company's witness maintains that BMSC still faces financial risk
18 as a result of the inter-company loans that were used to finance the
19 BMSC's treatment capacity assets. The Company's witness also fails to
20 grasp the rationale for my dual capital structure recommendation.

² Assuming the Commission adopts the Company's pro forma Scottsdale Capacity (Operating Lease) expense figure.

³ Assuming the Commission rejects the Company's pro forma Scottsdale Capacity (Operating Lease) expense figure.

1 Q. Do you agree with the Company witness that BMSC still faces financial
2 risk as a result of the inter-company loans that were used to finance the
3 Scottsdale treatment capacity?

4 A. No. As I explained in my direct testimony, if the Commission adopts the
5 Company's pro forma Scottsdale Capacity (Operating Lease) expense
6 figure, BMSC will recover the inter-company loans on a dollar-for-dollar
7 basis. As a result of this, any financial risk attributed to the inter-company
8 loans will cease to exist (assuming there ever was any financial risk on an
9 inter-company payable as opposed to long-term debt incurred with a third
10 party lender). Because of this situation, I recommended two separate
11 capital structures. One, based on BMSC's parent company's capital
12 structure and comprised of 43 percent debt and 57 percent common
13 equity, that I believe the Commission should adopt if it accepts the
14 Company's pro forma Scottsdale Capacity (Operating Lease) expense
15 figure, and a second, comprised of 44 percent debt and 56 percent
16 common equity, that I believe the Commission should adopt if it rejects the
17 Company's pro forma Scottsdale Capacity (Operating Lease) expense
18 figure (as recommended by RUCO witness Diaz Cortez). The two capital
19 structures that I have recommended produce weighted costs of capital of
20 8.92 percent and 9.45 percent respectively. Both of my recommended
21 capital structures would bring the Company's capital structure, and
22 weighted cost of capital, in line with the capital structures and weighted
23 costs of capital of the utilities included in my water company sample.

1 Q. For the sake of clarity, please explain the rationale for your dual capital
2 structure recommendation.

3 A. As I explained on page 55 of my direct testimony, the first capital structure
4 mirrors the test year capital structure of the Company's parent, Algonquin
5 Power, and includes the weighted cost of debt instruments that were
6 disclosed in Algonquin Power's 2004 annual report. I have recommended
7 this capital structure as opposed to a purely hypothetical capital structure
8 and I believe that it would be an appropriate capital structure for BMSC
9 should the Commission allow the Company to recover the inter-company
10 loans, associated with the Scottsdale treatment capacity operating
11 expense figure, on a dollar-for-dollar basis.

12 The second capital structure includes the inter-company loans used to
13 finance the acquisition of the BMSC assets and includes their stated
14 interest rates as a cost of debt. I have recommended this capital structure
15 should the Commission adopt Ms. Diaz Cortez's recommendation to treat
16 the Scottsdale treatment capacity as an asset to be included in the
17 Company's plant in service account. Were the Commission to adopt
18 RUCO's rate base recommendations, this capital structure would
19 essentially be the Company's actual test year capital structure, because it
20 would be comprised of the levels of inter-company debt and equity that
21 financed the assets which would be recovered through the traditional
22 ratemaking model advocated by Ms. Diaz Cortez.

Cost of Debt

Q. Please address the Company's position that your 9.49 percent recommended cost of equity is too low because it is close to the stated 9.40 percent rate of interest on BMSC's inter-company loans.

A. The only reason for the small spread between my recommended cost of common equity and the stated rate on BMSC's inter-company loans is that the Company failed to adjust the stated rate downward to reflect the trend in interest rates that occurred after the inter-company loans were established. While a 9.40 percent stated rate might have been reasonable during the mid-nineties, it certainly wasn't at the time that Algonquin Power acquired BMSC during 2001, when the yields of A and Baa-rated utility bonds had fallen to 7.51 percent and 7.82 percent respectively by November of that year. Neither is the 9.40 percent stated rate of interest, on BMSC's inter-company loans, representative of the weighted cost of debt instruments carried by the water utilities in my sample, which averaged approximately 6.45 percent (Appendix 1). As it stands now, BMSC's ratepayers are being penalized because the Company did not take advantage of lower cost debt financing while it was available or simply revise the stated rate of the inter-company loans to reflect the prevailing interest rate environment. Had BMSC taken out a loan with a third party lender at the time of the acquisition, prevailing interest rates would have been lower than the 9.40 percent rate set in the mid-nineties. Because of these reasons, I believe a good argument could be made to

1 use the same 8.16 percent weighted cost of debt, that I obtained from
2 Algonquin Power's 2004 annual report, in both of my recommended
3 capital structures. This would result in weighted costs of capital of
4 approximately 8.92 percent for both capital structures.

5
6 Q. The 8.16 percent cost of debt you obtained from Algonquin Power's 2004
7 annual report is still 171 basis points higher than the 6.45 percent average
8 cost of debt of your sample water utilities. Why haven't you revised your
9 recommended costs of debt using the lower 6.45 percent figure?

10 A. Because I recognize the fact that interest rates have increased in the last
11 two years. I recently used the aforementioned 6.45 percent average
12 weighted cost of debt of my sample utilities to develop a hypothetical cost
13 of debt for Far West Water and Sewer Company ("Far West"). In that rate
14 case proceeding, I recommended a hypothetical cost of debt of 8.45
15 percent, or 29 basis points higher than the 8.16 percent cost of debt
16 obtained from Algonquin Power's 2004 annual report.

17
18 Q. Why haven't you revised your recommended costs of debt to reflect the
19 same 8.45 percent figure that you recommended in the Far West
20 proceeding?

21 A. Because I believe that the 8.16 percent cost of debt obtained from
22 Algonquin Power's 2004 annual report is more appropriate given the fact
23 that Algonquin Power is BMSC's parent company.

Cost of Common Equity

Q. Has BMSC made any changes to the Company-proposed cost of common equity of 11.00 percent?

A. No.

Q. How did ACC Staff's cost of capital witness arrive at his final cost of equity estimate of 9.60 percent?

A. ACC Staff's witness arrived at his final estimate of 9.60 percent by averaging the results of his DCF and CAPM models.

Q. What would your cost of equity estimate be if you were to average the results of your DCF and CAPM models as ACC Staff has?

A. Averaging the results of my water company sample DCF result of 9.49 percent, and my water company sample CAPM result, using a geometric mean, of 8.89 percent produces an estimate of 9.19 percent, which is 41 basis points lower than ACC Staff's 9.60 percent estimate and 181 basis points lower than the Company's 11.00 percent estimate. Averaging the results of my water company sample DCF result of 9.49 percent, and my water company sample CAPM result, using an arithmetic mean, of 10.39 percent produces an estimate of 9.94 percent, that is 34 basis points higher than ACC Staff's 9.60 percent estimate and 106 basis points lower than the Company's 11.00 percent estimate. An average of my water company DCF result of 9.49 percent and both of my water company

1 CAPM results of 10.39 percent and 8.89 percent results in an estimate of
2 9.59 percent, which is only one basis point lower than ACC Staff's 9.60
3 percent estimate and 141 basis points lower than the Company's 11.00
4 percent estimate.

5
6 Q. Does ACC Staff's final cost of equity estimate include a financial risk
7 adjustment that reflects the absence of financial risk in the Staff
8 recommended capital structure comprised of 100 percent common equity?

9 A. No, it does not. However, ACC Staff's witness did calculate a financial
10 risk adjustment of negative 30 basis points using a technique developed
11 by Robert Hamada (which relies on the use of a levered beta in the
12 CAPM). This is the same method that ACC Staff used to derive a 60
13 basis point upward adjustment that was included in the 10.40 percent cost
14 of common equity that ACC Staff recommended in a recent rate case
15 involving Arizona-American Water Company Inc.⁴ ("Arizona-American").
16 The 60 basis point upward adjustment took into account Arizona-
17 American's leveraged capital structure of 63.0 percent debt and 37.0
18 percent equity.

19 On page 34 of his direct testimony on BMSC, ACC Staff's witness stated
20 that the application of the negative 30 basis points, derived from the
21 Hamada technique, to his final estimated 9.60 percent cost of equity would
22 result in a weighted cost of capital of 9.30 percent for BMSC. This 9.30

⁴ Docket No. W-01303A-05-0405

1 percent figure falls inside my 8.92 percent to 9.45 percent range of
2 weighted cost of capital estimates noted earlier.

3
4 Q. The Company's cost of capital witness stated that the dividend yield
5 component of your DCF model was obtained from spot prices of the
6 stocks of the water utilities included in your sample. Is this correct?

7 A. No. As I explained on pages 28 and 62 of my direct testimony, I use an 8-
8 week average of closing stock prices to arrive at the P_0 input for my DCF
9 model.

10
11 Q. Do you believe that Southwest Water Company ("SWWC") should have
12 been excluded from your sample based on its percentage of revenues
13 from water utility services as pointed out by the Company's cost of capital
14 witness?

15 A. No. The Company is attempting to make an argument that my DCF
16 dividend yield estimate is biased downward as a result of my inclusion of
17 SWWC. Even though it is true that SWWC's water utilities make up
18 approximately 38 percent of total revenues, the majority of SWWC's
19 remaining revenues are derived from activities that are closely related to
20 the provision of regulated water and wastewater services (i.e. equipment
21 maintenance and repair, sewer pipeline cleaning, billing and collection
22 services, and state-certified water and wastewater laboratory analysis on
23 a contract basis) as opposed to highly speculative activities that are totally

1 unrelated to the water and wastewater industry. For this reason I saw no
2 need to exclude SWWC from my sample. In fact, I believe it is somewhat
3 telling that SWWC, which actually does do business in the competitive
4 arena, had a lower estimated cost of equity than the other water utilities in
5 my sample.

6
7 Q. Please address the Company's position that, in addition to your dividend
8 yield estimate just discussed, your estimates of external growth are also
9 biased downward.

10 A. The Company's cost of capital witness has taken issue with my calculation
11 of "v" for the external growth rate estimate portion of the DCF's growth
12 component. This calculation takes into consideration the fact that, while in
13 theory a utility's stock price should move toward a market to book ratio of
14 1.0 if regulators authorize a rate of return that is equal to a utility's cost of
15 capital, in reality a utility will continue to issue shares of stock that are
16 priced above book value.

17 As I explained on pages 17 through 18 of my direct testimony, this same
18 assumption was incorporated into the DCF analysis performed by Mr.
19 Stephen Hill, ACC Staff's cost of cost of capital witness in the Southwest
20 Gas rate case proceeding. Mr. Hill used the same methods that I have
21 used in arriving at the inputs for his DCF model. His final recommendation
22 for Southwest Gas Corporation, which was adopted by the Commission,
23 was largely based on the results of his DCF analysis, which incorporated

1 the same valid market-to-book ratio assumption that I have used
2 consistently.

3
4 Q. Please discuss the Company's criticism of your testimony that one of the
5 desired effects of regulation is to achieve a market-to-book ratio of 1.0 on
6 the common stock of an investor owned utility.

7 A. My direct testimony sets forth the premise that the market value of a
8 utility's stock will tend to move toward book value, or a market-to-book
9 ratio of 1.0, if regulators allow a rate of return that is equal to the cost of
10 capital of firms with similar risk. This premise is recognized among
11 practitioners who have testified in cost of capital proceedings⁵.

12 A utility's market price should equal its book price over the long run if
13 regulators allow a rate of return that is equal to the utility's cost of capital.

14 That is assuming that the utility's rate of return ("ROR") is comparable to
15 the rates of return of other firms in the same risk class. For example, if a
16 hypothetical utility's book price is \$20.00 per share and regulators adopt a
17 rate of return that is equal to the utility's cost of capital of 10.00 percent,
18 the utility will earn \$2.00 per share ("EPS"). With earnings of \$2.00 per
19 share, and a market required rate of return on equity of 10.00 percent, for
20 firms in the utility's risk class, the market price of the utility's stock will set
21 at \$20.00 per share (\$2.00 EPS ÷ 10.00% ROR = \$20.00 per share price).

22 If the utility records earnings that are higher than the earnings of other

⁵ Carleton, Willard T. and Morin, Roger A.

1 firms with similar risk, the market value of the utility's shares will increase
2 accordingly ($\$2.50 \text{ EPS} \div 10.00\% \text{ ROR} = \25.00 per share). On the other
3 hand, if the utility posts lower earnings, the stock's market price will fall
4 below book value ($\$1.50 \text{ EPS} \div 10.00\% \text{ ROR} = \15.00 per share).

5 Because of economic forces beyond the control of regulators, it is not
6 reasonable to assume that the utility will have earnings that match those
7 of firms of similar risk in every year of operation. In some years, earnings
8 may drop causing the market-to-book ratio to fall below 1.0, while in other
9 years the utility may have earnings that exceed those of other firms in its
10 risk classification. However, over the long run the utility's earnings should
11 average out to the earnings that are expected based on its level of risk.
12 These average earnings over time will result in a market-to-book ratio of
13 1.0. A 1.0 ratio may never be achieved in practice and many investors
14 may not even care what the market-to-book ratio is as long as they
15 receive their required rate of return.

16
17 Q. Does the investment community at large recognize the fact that regulated
18 utilities, such as BMSC, are different from non-regulated entities in terms
19 of how they obtain their earnings?

20 A. Yes, I believe more so than the Company's cost of capital witness
21 probably would like to admit. For example, over the past year several
22 articles on investing in the water infrastructure industry have appeared on
23 the Internet, such as MSN Money/CNBC, and in the print and online

1 editions of Forbes magazine (Attachment A). In the MSN Money/CNBC
2 piece⁶ (Attachment B), author Jon D. Markman, a weekly columnist for
3 CNBC, pitched his suggestions for investing in what some believe to be a
4 coming global water shortage. In regard to domestic utilities, Markman
5 had this to say:

6 "Virtually all of the U.S. water utility stocks are regulated by
7 states and counties, which makes them pretty dull. Govern-
8 mental entities typically give utilities a monopoly in a geo-
9 graphic region, then set their profit margin a smidge above
10 costs. Just about the only distinguishing factor among them
11 are the growth rates of their regions and their ability to
12 efficiently manage their underground pipe and pumping infra-
13 structure."

14
15 Even though investors are aware of these facts, it appears that it has not
16 deterred them from investing in water/wastewater utility stocks according
17 to John Dickerson, an analyst with Summit Global Management of San
18 Diego who offered these observations in the Markman article:

19
20 "Although not widely appreciated, water has been recog-
21 nized by conservative investors as an investment opportunity
22 -- and it has rewarded them. Over the past 10 years, the
23 Media General water utilities index is up 133%, double the
24 Return of the Dow Jones Utilities Index. Over the past five
25 Years, water utilities are up 32% -- clobbering the flat returns
26 of both the Dow Jones Utilities and the Dow Industrials. One
27 of water's key long-term value drivers as an investment,
28 according to Dickerson: Demand is not affected by inflation,
29 recession, interest rates or changing tastes."
30

31

⁶ Markman, Jon D, "Invest in the Coming Global Water Shortage," MSN.com, January 12, 2005,
<http://moneycentral.msn.com/content/P102152.asp>.

1 Both Mr. Markman's and Mr. Dickerson's views are shared by Jeffrey R.
2 Kosnett, the senior editor of Kiplinger's Personal Finance, who had this to
3 say in his February 21, 2006 Kiplinger.com column⁷ (Attachment C):

4 "If only there were more water stocks. The few publicly traded
5 water companies are pumping marvelous total returns: 25%
6 a year over the past ten years at industry giant Aqua America
7 (symbol WTR) and close to that at others, such as California
8 Water Services (CWT), American States Water (AWR) and
9 SJW Corp. (SJW). Water stocks are also remarkably con-
10 sistent, with double-digit annualized total returns common
11 across one, three, five and ten years."
12

13
14 Mr. Kosnett went on to state:

15 "Water companies' returns are regulated, so the companies
16 are classified as public utilities. But for investors, they're more
17 like dividend-paying growth stocks -- and not just because of
18 their past performance. Water usage expands with population
19 and housing growth, and water companies are also able to
20 grow by making acquisitions. California Water started expand-
21 ing to other states in 1999 when it bought into Washington and
22 says it is always scouting around for more opportunities."
23

24
25 What I believe is interesting here is that water/wastewater stocks are
26 performing well despite the fact that they are typically awarded rates of
27 return that only provide them with a thin operating margin over their costs.
28 This being the case there is no need to award higher returns on common
29 equity such as the 11.00 percent figure advocated by the Company's cost
30 of capital witness.
31

⁷ Kosnett, Jeffrey R, "California Water: Refreshing," Kiplinger.com, February 21, 2006,
<http://www.kiplinger.com/personalfinance/columns/picks/archive/2006/pick0221.htm>.

1 Q. Can you cite any other reasons why you believe that your calculation of
2 "v," for the external growth rate estimate portion of the DCF's growth
3 component, should continue to be relied on despite the Company's
4 position on market-to-book ratios?

5 A. Yes. There is a good possibility that water and wastewater utility stock
6 prices are inflated and that there is no need for these utilities to pay out as
7 much as they are in dividends. On March 24, 2006, RWE AG announced
8 its intentions to sell American Water on the open market through an initial
9 public offering ("IPO") process. Once the IPO is completed, American
10 Water, which was one of the largest and most successful of all of the U.S.
11 water utilities prior to RWE AG's acquisition of it, will be traded on a stock
12 market as the other water utilities in my sample are. In the November 8,
13 2005 online edition of Forbes magazine John Dickerson, the same analyst
14 interviewed in the Markman article just cited, stated that he believed that
15 this is good news for investors, because it will bring down the inflated
16 values of U.S. water utilities. In addition to bringing water and wastewater
17 utility stock prices in line with their book values, the correction anticipated
18 by Mr. Dickerson would allow water utilities to still offer attractive yields to
19 investors without having to pay out the same percentage of their earnings
20 in dividends that they do now.

1 Q. Did the Company's cost of capital witness take into consideration any of
2 the concepts or information you have cited above into in developing the
3 inputs for his DCF model?

4 A. No. As a result of this and his over-reliance on analyst's projections,
5 which I noted in my direct testimony, his estimates are upwardly biased.
6

7 Q. Please discuss the Company's position that the higher long-term returns
8 currently projected by Value Line analysts are more reliable now than the
9 higher inaccurate projections that Value Line made for the 2002 through
10 2005 period.

11 A. The Company's cost of capital witness opines that the reason for Value
12 Line's less than stellar track record for the period from 2002 through 2005
13 was due to poor weather conditions in California and delays in obtaining
14 rate increases from the California PUC. In response, I can say that if the
15 Company's rebuttal testimony on this issue proves anything at all, it is that
16 the only two sure things in life are death and taxes. If the Company's cost
17 of capital witness is willing to believe that analysts at Value Line, Zacks,
18 Merrill Lynch, or I/B/E/S have all gotten better at predicting the weather or
19 the actions of utility regulators, which I stopped second-guessing years
20 ago, then more power to him. I for one believe that analyst's estimates
21 are just that, estimates. Long-term estimates should be viewed and
22 evaluated objectively against historical results in order to arrive at
23 balanced and reasonable inputs for any model used in the determination

1 of a cost of equity as opposed to blind reliance on analyst's estimates.
2 The Company's blind reliance on these estimates is a primary reason for
3 the difference between my 9.49 percent recommendation and the
4 Company-proposed estimate of 11.00 percent.

5
6 Q. Please comment on the Company's rebuttal testimony on the CAPM
7 methodology for determining cost of equity.

8 A. The Company's cost of capital witness seems to want to have things both
9 ways. After he questions the use CAPM in rate case proceedings and
10 explains why he believes that the reliance on published betas is
11 problematic, he then goes on to perform a CAPM analysis using his
12 preferred inputs. This produces a 10.50 percent result that is slightly
13 higher than the 10.39 percent result obtained in my model using an
14 arithmetic mean, and a full 50 basis points lower than his 11.00 percent
15 estimate which was heavily influenced by analyst's long-term forecasts.
16 He then criticizes me for not recommending the higher 10.39 percent
17 result obtained in my CAPM analysis. If anything, I believe his testimony
18 on CAPM reinforces my argument that his 11.00 percent cost of equity
19 estimate is too high and should be adjusted downward.

20
21 Q. Is the Company's cost of capital witness correct in his criticism of CAPM?

22 A. I believe his argument is unwarranted and outdated. While it is true that
23 the use of CAPM in rate case proceedings first came under fire twenty-five

1 years ago, that hasn't stopped cost of capital practitioners from using the
2 model or public utility commissions from accepting the model's results.
3 Although I have always used CAPM in a supporting role, both at RUCO
4 and at the ACC, two other expert witnesses (both of whom are Ph.D.'s)
5 that filed testimony in recent Arizona-American cases⁸ have chosen to use
6 CAPM as their primary method for estimating their recommended costs of
7 equity.

8
9 Q. Do you ever allow the results of your CAPM analysis to influence your final
10 recommended cost of equity, which was derived from your DCF analysis?

11 A. Generally speaking no. If the Company's witness were to review copies of
12 prior testimony I have filed with the ACC, he would find that for the most
13 part I have relied on my DCF results, even when my CAPM analyses,
14 using both the arithmetic and the geometric means, produced lower
15 estimates.

16
17 Q. Please address the Company's position that your recommended cost of
18 equity is too low given BMSC's size?

19 A. As I stated in my direct testimony, the size argument has been
20 consistently rejected by the Commission in past rate case proceedings.
21 That aside, given the size and financial strength of the Company's parent,
22 Algonquin Power, which is publicly traded on a major stock exchange and

⁸ Docket No.'s W-01303A-05-0405 and WS-01303A-06-0014.

1 owns 100 percent of BMSC, I fail to understand why the Company's cost
2 of capital witness would even attempt to use that argument in this case.
3 For all practical purposes, BMSC is no different from many other Arizona
4 water or wastewater systems that are owned by large corporate entities.
5 Nor for that matter is BMSC any different from the many water and
6 wastewater systems that comprise the water utilities used in my sample.
7

8 Q. Has any of the rebuttal testimony presented by BMSC's witnesses
9 convinced you to make adjustments to your recommended cost of
10 common equity?

11 A. No.
12

13 Q. Does your silence on any of the issues or positions addressed in the
14 rebuttal testimony of the Company's witnesses constitute acceptance?

15 A. No, it does not.
16

17 Q. Does this conclude your surrebuttal testimony on BMSC?

18 A. Yes, it does.

APPENDIX 1

BLACK MOUNTAIN SEWER CORPORATION
TEST YEAR ENDED DECEMBER 31, 2004
COST OF DEBT ANALYSIS

DOCKET NO. SW-02361A-05-0657
APPENDIX 1

PUBLICLY TRADED WATER COMPANIES - APPROXIMATE WEIGHTED COSTS OF DEBT

LINE NO.	STOCK SYMBOL	COMPANY	WEIGHTED COSTS
1	AWR	AMERICAN STATES WATER CO.	7.12%
2	CWT	CALIFORNIA WATER SERVICE GROUP	6.51%
3	SWWC	SOUTHWEST WATER COMPANY	6.70%
4	WTR	AQUA AMERICA, INC.	5.74%
5	CTWS	CONNECTICUT WATER SERVICES, INC.	5.13%
6	MSEX	MIDDLESEX WATER COMPANY	5.66%
7	SJW	SJW CORP.	7.23%
8	YORW	YORK WATER COMPANY	7.48%
9	AVERAGE OF APPROXIMATE WEIGHTED COSTS OF DEBT (a)		6.45% AVERAGE OF LINES 1 THRU 8

REFERENCE:
 MOST RECENT SEC 10-K FILINGS

NOTE:

(a) COSTS ARE APPROXIMATE AND DO NOT INCLUDE THE FOLLOWING:
 DEBT ISSUES THAT DID NOT HAVE STATED YIELDS; AND
 DEBT ISSUES WITH ZERO RATES OF INTEREST.
 IN THE CASE OF ISSUES WITH VARIABLE RATES OF INTEREST THE HIGH END OF THE VARIABLE RANGE WAS USED.



ATTACHMENT A



Faces In The News

Money Manager Hails RWE Water Divestiture

Tatiana Serafin, 11.08.05, 2:24 PM ET

In "Liquid Stocks", Summit Global Management's **John Dickerson** discussed opportunities to invest in water companies that were helping build water systems in China and other developing nations. His pick, **RWE**, had investments in the U.K.'s Thames Water and American Water Works of the U.S. and provided investors with dividend yields above the market average and price/earnings ratio well below. On November 4, however, RWE announced it would divest its water assets and focus on electricity and gas markets in Europe.

"We are very happy that RWE is planning to get out of the water business," says Dickerson, "and we think in the longer run it will be a healthy development for investors in the U.S. water industry. The disposition of water utility assets in the U.S. is absolutely not an indication that this is a bad business that should be avoided by investors."

Dickerson says that American Water Works was the largest and most successful of all the U.S. water utilities before the RWE purchase (today he says that accolade is with **Aqua-America** (nyse: WTR - news - people) (See "Splash") and predicts that RWE will choose to publicly offer its utility assets because it can get better premiums in public markets. Dickerson does not believe either private equity investors or any other water utility companies would be interested in American Water Works because of the potential high price. He says only **General Electric** (nyse: GE - news - people) would be large enough to swallow American Water Works whole, but companies like GE, **ITT Industries** (nyse: ITT - news - people) and **3M** (nyse: MMM - news - people) have not shown previous interest in water utility assets, preferring to stick to water industrial assets—e.g. filtration, desalination and instrumentation markets.

That's good news for investors. Dickerson says an initial public offering for American Water Works would help bring down inflated multiples of smaller U.S. utilities which is the reason Dickerson moved most of his funds outside the U.S. Better valuations would mean more investment options.

For the moment, Dickerson also recommends sticking with RWE because there is not enough information about pending transactions. He says holding RWE might give existing investors preferential rights with respect to new water shares—a two-for-one bonus.

More Faces In The News

ATTACHMENT B



Jon Markman

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SuperModels

Invest in the coming global water shortage

Fresh water's getting scarce, and it has no substitutes. For investors in companies that can supply our increasingly thirsty planet, that spells opportunity.

By Jon D. Markman

Ten years ago next Monday, a massive earthquake rolled under the Japanese city of Kobe at dawn, toppling 140,000 buildings, causing 300 major fires, killing more than 5,000 people and leaving 300,000 homeless.

To help cover the story for the L.A. Times, I left my wife to care for our 10-day-old daughter and 2-year-old son and flew into the city with a small team of Los Angeles-based trauma doctors and nurses. We found a surreal, smoking ruin of a city with roads twisted like coils of rope, high-rises tilted at Dr. Seuss angles and thousands of middle-class families jammed into dingy, ice-cold rooms in the few public buildings left standing.

Just as in the tsunami zone of South Asia this month, the immediate health danger, besides a possible outbreak of disease, was a lack of fresh water. More than 75% of the city's water supply was destroyed when underground pipes fractured. As much as they desired pallets of drugs, food, blankets and tents sent from throughout Japan and abroad, the Kobe survivors coveted -- and needed -- clean, bottled water for cooking, drinking and bathing.

Both incidents are a stark reminder that water is our most precious resource. Because it is seemingly ubiquitous in the United States, it is taken for granted.

Massive snowstorms in California this month have loaded up the snowpack that provides water there, and rains in the Southeast are filling reservoirs in that part of the country.

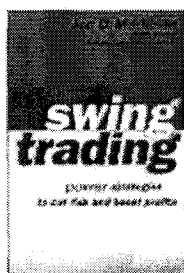
The rest of the world, however, is not so fortunate.

Not making any more water

There is no more fresh water on Earth today than there was a million years ago. Yet today, 6 billion people share it. Since 1950, the world population has doubled, but water use has tripled, notes John Dickerson, an analyst and fund manager based in San Diego. Unlike petroleum, he adds, no technological innovation can ever replace water.

China, which is undergoing a vast rural-to-urban population migration, is emblematic of the places where water has become scarce. It has about as much

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water as Canada but 100 times more people. Per-capita water reserves are only about a fourth the global average, according to experts. Of its 669 cities, 440 regularly suffer moderate to critical water shortages.

Although not widely appreciated, water has been recognized by conservative investors as an investment opportunity -- and it has rewarded them. Over the past 10 years, the Media General water utilities index is up 133%, double the return of the **Dow Jones Utilities Index** (\$UTIL). Over the past five years, water utilities are up 32% -- clobbering the flat returns of both the Dow Jones Utilities and the **Dow Industrials** (\$INDU). One of water's key long-term value drivers as an investment, according to Dickerson: Demand is not affected by inflation, recession, interest rates or changing tastes.

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Virtually all of the U.S. water utility stocks are regulated by states and counties, which makes them pretty dull. Governmental entities typically give utilities a monopoly in a geographic region, then set their profit margin a smidge above costs. Just about the only distinguishing factor among them are the growth rates of their regions and their ability to efficiently manage their underground pipe and pumping infrastructure. Among the best are **Aqua America** (WTR, [news](#), [msgs](#)) of Philadelphia, **Southwest Water** (SWWC, [news](#), [msgs](#)) of Los Angeles; **California Water Service Group** (CWT, [news](#), [msgs](#)), based in San Jose, Calif.; and **American States Water** (AWR, [news](#), [msgs](#)) of San Dimas, Calif.

In a moment, I'll offer a couple of potentially more impactful ways to invest in water, but first let's look a little more broadly at world demand.

Aquifers in India are being sucked dry

The tsunami has focused attention on water demand in South Asia -- and it's a good thing, as it was already reaching critical status in rural areas. Several decades ago, farmers in the Indian state of Gujarat used oxen to haul water in buckets from a few feet below the surface. Now they pump it from 1,000 feet below the surface. That may sound good, but they have been drawing water from the earth to feed a mushrooming population at such a terrific rate that ancient aquifers have been sucked dry -- turning once-fertile fields slowly into sand.

According to New Scientist magazine, farmers using crude oilfield technology in India have drilled 21 million "tube wells" into the strata beneath the fields, and every year millions more wells throughout the region -- all the way to Vietnam -- are being dug to service water-needy crops like rice and sugar cane. The magazine quoted research from the annual Stockholm Water Symposium that the pumps that transformed Indian farming are drawing 200 cubic kilometers of water to the surface each year, while only a fraction is replaced by monsoon

rains. At this rate, the research suggested, groundwater supplies in some areas will be exhausted in five to 10 years, and millions of Indians will see their farmland turned to desert.

In China, the magazine reported, 30 cubic kilometers more water is being pumped to the surface each year than is replaced by rain -- one of the reasons that the country has become dependent on grain imports from the West. This is not just an issue for agriculture. Earlier this year, the Indian state of Kerala ordered the **PepsiCo** (PEP, news, msgs) and **Coca-Cola** (KO, news, msgs) bottling plants closed due to water shortages, costing the companies millions of dollars.

In this country, shareholder activists already are lobbying companies to share water-dependency concerns worldwide with their stakeholders in their financial statements.

Water, water everywhere, but . . .

The central problem is that less than 2% of the world's ample store of water is fresh. And that amount is bombarded by industrial pollution, disease and cyclical shifts in rain patterns. Its increasing scarcity has impelled private companies and countries to attempt to lock up rights to key sources. In an article last month, the Christian Science Monitor suggested that the next decade may see a cartel of water-exporting countries rivaling the Organization of Petroleum Exporting Countries for dominance in the world economy.

"Water is blue gold; it's terribly precious," Maude Barlow, chair of the Council of Canadians, told the Monitor. "Not too far in the future, we're going to see a move to surround and commodify the world's fresh water. Just as they've divvied up the world's oil, in the coming century, there's going to be a grab."

Besides the domestic water utilities listed above -- and similarly plodding foreign utilities such as **United Utilities** (UU, news, msgs) of the United Kingdom, which sports a 6.9% dividend yield, and **Suez** (SZE, news, msgs) of France -- investors interested in the sector can consider a number of variant plays. None are extremely exciting, but my guess is that, over the next few years, some more interesting purification technologies will emerge, along with, perhaps, a vibrant attempt at worldwide industry consolidation.

One current idea is Tennessee-based copper pipe and valve maker **Mueller Industries** (MLI, news, msgs), a \$1 billion business with a trailing price/earnings multiple of 15 that is still not expensive despite a 47% run-up in the past year. Its leading outside investor is **Berkshire Hathaway** (BRK.A, news, msgs), the

investment vehicle of legendary investor Warren Buffett.

Another is flow-control products maker **Watts Water**

Technologies (WTS, news, msgs), which is a little richer at a \$975 million market cap and a trailing P/E multiple of 19, but is still owned by several leading value managers, including Mario Gabelli.

And possibly the most interesting is **Consolidated Water** (CWCO, news, msgs), a \$160 million company based in the Cayman Islands that specializes in developing and operating ocean-water desalinization plants and water-distribution systems in areas where natural supplies of drinking water are scarce, such as the Caribbean and South America. It currently supplies water to Belize, Barbados, the British Virgin Islands and the Bahamas, and it has expansion plans. It is the most expensive, but it may also have the greatest growth prospects. Of all of these, it is up the most over the past five years, a relatively steady 355%.

Of course, there is one other benefit to water investing: When these companies say they're going to do a dilutive deal, it's not something to worry about.

Fine Print

Dickerson runs a hedge fund in San Diego strictly focused on water investing, the Summit Water Equity Fund. . . To learn more about Southwest Water, [click here](#). . . . To learn more about California Water Service Group, which runs systems in New Mexico, Hawaii and Washington State, as well as California, [click here](#). . . . To learn more about American States Water, [click here](#). . . To learn more about Mueller, [click here](#), and, for Consolidated Water, [click here](#). . . . Seems like talk is cheap. Since mid-December, the value of the company radio personality Howard Stern is leaving, **Viacom** (VIA.B, news, msgs), has risen 9% while the value of the company he's headed to, **Sirius Satellite Radio** (SIRI, news, msgs), is down 13.5%. . . . For background on the Kobe earthquake, approaching its 10th anniversary, [click here](#) and [here](#).

Jon D. Markman is publisher of [StockTactics Advisor](#), an independent weekly investment newsletter, as well as senior strategist and portfolio manager at Pinnacle Investment Advisors. While he cannot provide personalized investment advice or recommendations, he welcomes column critiques and comments at jon.markman@gmail.com; put COMMENT in the subject line. At the time of publication he held positions in the following stocks mentioned in this column: Coca-Cola.

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ATTACHMENT C

Kiplinger.com

February 21, 2006

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STOCK WATCH

California Water: Refreshing

by

Water utility stocks are good growth investments, and they have decent dividends.

If only there were more water stocks. The few publicly traded water companies are pumping marvelous total returns: 25% a year over the past ten years at industry giant **Aqua America** (symbol WTR) and close to that at others, such as **California Water Services** (CWT), **American States Water** (AWR) and **SJW Corp.** (SJW). Water stocks are also remarkably consistent, with double-digit annualized total returns common across one, three, five and ten years.

One of the best performers so far in 2006 is California Water, which is headquartered in San Jose and also has operations in Hawaii, New Mexico and Washington. At \$42, it's up 9% from \$38 at the start of 2006. Cal Water just announced a strong finish to 2005, with fourth-quarter earnings of 32 cents a share, up from 20 cents a year earlier. Cal Water's full-year 2005 profits were basically flat because of the rainy weather early in 2005 that restrained water consumption. But business is improving again. There's also a \$1.15-a-share dividend that works out to a yield of 2.7%. California Water has now raised dividends for 39 straight years.

Assuming normal weather conditions in 2006, analysts James Lykins of Hilliard Lyons and David Schanzer of Janney Montgomery Scott are calling for Cal Water's earnings to jump this year, from \$1.48 a share for 2005 to \$1.75 and \$1.86, respectively. Both reviewed the recent quarter and have a buy rating on the shares. Since water companies are generally trading at 25 to 30 times earnings, the shares would then appear to be headed for around \$50.

Water companies' returns are regulated, so the companies are classified as public utilities. But, for investors, they're more like dividend-paying growth stocks -- and not just because of their past performance. Water usage expands with population and housing growth, and water companies are also able to grow by making acquisitions. California Water started expanding to other states in 1999 when it bought into Washington and says it is always scouting around for more opportunities.

--Jeffrey R. Kosnett

This page printed from: <http://www.kiplinger.com/personalfinance/columns/picks/archive/2006/pick0221.htm>

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